

# NASA - Electronic Health Record System (EHRS)

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## Hardware Infrastructure Recommendations

The purpose of this document is to provide information concerning basic network and hardware requirements for NASA Occupational Health Clinics implementing the EHRS. Unfortunately, it is almost impossible to come up with a "one size fits all" requirement for the I/T/U as our facilities range from rather large to quite small in size. A "minimum" requirement at one site might be woefully inadequate at another.

As EHRS is a product in development, its effect on performance is not precisely known. Some estimates anticipate an increase in demand on computing resources. It is logical to assume that adding additional software to an existing computing environment will require some level of additional resources. The following are preliminary recommendations extrapolated from preparations made at two of the alpha sites for EHR implementation at Indian Health Services.

### **LAN infrastructure within a facility:**

100mb wiring infrastructure to the desktop at a minimum. Gigabit preferred if possible. If wireless is utilized, it should be at the latest technology and speed with appropriate encryption and security to protect confidential patient data. Wireless technology is changing very rapidly, so sites with significantly future implementation plans may do well to delay acquisition of wireless equipment until closer to the go-live date, in order to take advantage of new developments.

### **RPMS Server/Hardware minimum requirements:**

Both of the EHR hospital alpha sites elected to go with multiple processor (4) machines with large amounts of RAM and disk space to accommodate the anticipated EHR demands. With that in mind, we recommend the following minimum requirements for each site planning on implementing EHR:

**RS6000/AIX sites** IBM P-series or later (620, 630, etc.)

Quad CPU

4GB RAM

150 - 200GB disk space - mirrored for fault tolerance

100/1000 Network Interface Card

AIX 5.2 operating system (latest maintenance level)

**Windows Sites** DELL Poweredge Server (or equivalent)

Quad CPU

4GB RAM

150 - 200GB disk space - RAID 1 or RAID 5

100/1000 Network Interface Card

Windows 2000 or 2003 operating system

In either case, a second system identical to the primary system is required, to act as a "shadow" and to provide fault tolerance and redundancy for the EHR database.

The RPMS server hardware requirement will depend on exactly what the facility is running for software and how busy the facility is in terms of visits, users, etc. It could differ dramatically from the above minimum requirements. Every facility will be different.

No additional hardware is required to run the VueCentric GUI framework application. A GUI object repository required by VueCentric may be located on a web server, an NT shared folder, or a UNIX directory. The VueCentric application itself resides on the various client computers throughout the facility.

For additional information on network and hardware requirements, contact:  
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